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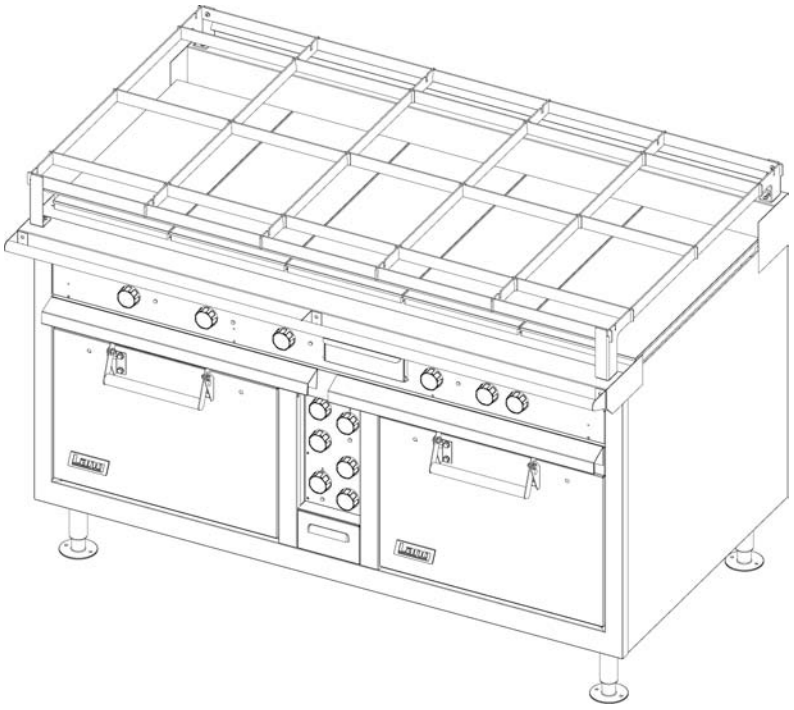

Installation, Operation, Maintenance, & Troubleshooting
Model: R60S
Standard Bake Oven Range

Star Manufacturing International 10 Sunnen Drive St. Louis, MO.63143-3800
Part Number: 2M-W822 Ph: 314-781-2777 Fax: 314-781-2714
Rev. B WWW.STAR-MFG.COM October 8, 2008

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

POST IN A PROMINENT LOCATION

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

Model #:	**Purchased From:**
Serial #:	**Location:**
Date Purchased:	**Date Installed:**
Purchase Order #:	**For Service, Call:**

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Warnings

CAUTION: THE RANGE WEIGHS 900 LBS. (408 KILOGRAMS). FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.

CAUTION: ANY STAND, COUNTER OR OTHER DEVICE ON WHICH RANGE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE RANGE (900 LBS.).

CAUTION: SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.

DANGER: THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.

WARNING: INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.

NOTICE: The data plate is located right of the range top controls and circuit breaker door on oven. The oven voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.

NOTICE: The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to the applicable National, State and locally recognized installation standards.

NOTICE: During the first few hours of operation you may notice a small amount of smoke coming off the unit, and a faint odor from the smoke. This is normal for a new range and will disappear after the first few hours of use.

CAUTION: ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.

CAUTION: KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.

Warnings

WARNING	**KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.**
CAUTION:	**MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. WEAR RUBBER GLOVES, GOGGLES/FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.**
NOTICE:	**Service on this or any other Lang appliance must be performed by qualified personnel only. Consult your Lang Authorized Service Agent Directory. You can call our toll free number 1-800-807-9054 or visit our website** WWW.STAR-MFG.COM **for the service agent nearest you.**
WARNING:	**BOTH HIGH AND LOW VOLTAGES ARE PRESENT INSIDE THIS APPLIANCE WHEN THE UNIT IS PLUGGED/WIRED INTO A LIVE RECEPTACLE. BEFORE REPLACING ANY PARTS, DISCONNECT THE UNIT FROM THE ELECTRIC POWER SUPPLY.**
CAUTION:	**USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.**

Equipment Description

Double Bake Oven Range

Exterior

The range dimensions are 30” (76.2cm) High, 35” (89.0cm) deep, and 60” (152.5cm) wide.

The sides, bottom, and rear wall are constructed stainless steel.

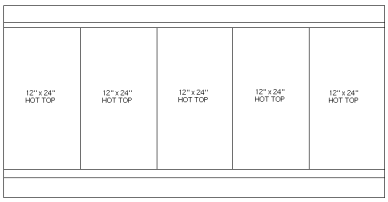
The range surface can come in 7 different configurations.

Controls

The R60S Series Range is available with various controls depending upon model number. A layout of each top configuration with its proper model number and a brief description of the controls is shown below. All R60S Ranges have two or the same type of standard bake oven, which has two 3-heat switches, one to control the top element and one to control the bottom element. In addition, the oven has a thermostat that controls the overall temperature of the oven

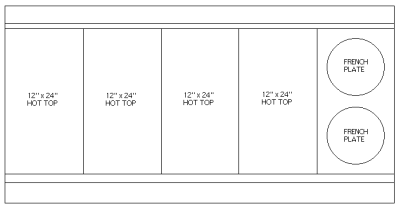
R60S -A

Five 12”x24” Hot tops controlled by five 850°F Thermostats.



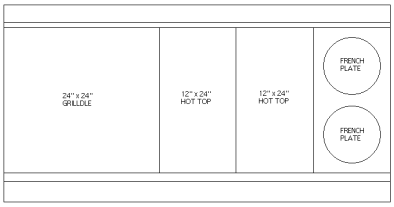
R60S -B

Four 12”x24” Hot tops controlled by four 850°F thermostats and two French plates controlled by two 6-heat switches.



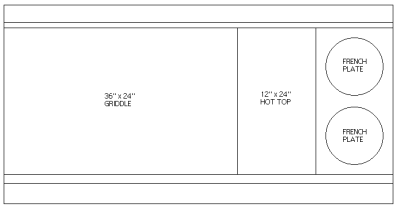
R60S -C

24”x24” Griddle controlled by two 450°F thermostats, two Hot tops controlled by two 850° thermostats, and two French plates controlled by two 6-heat switches.



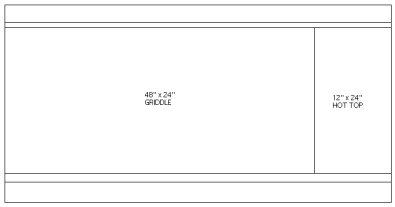
R60S -D

36”x24” Griddle controlled by three 450°F thermostats, 12”x24” Hot top controlled by one 850° thermostat and two French plates controlled by two 6-heat switches.



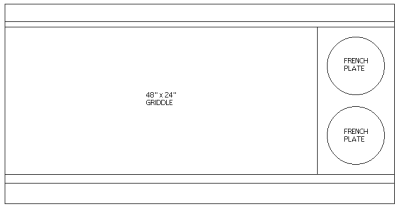
R60S -E

48”x24” Griddle controlled by four 450°F thermostats, and one 12”x24” Hot top controlled by one 850° thermostat.



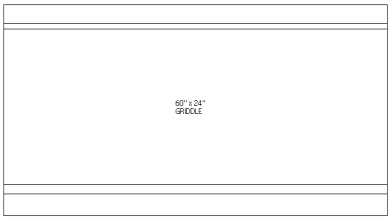
R60S -F

48”x24” Griddle controlled by four 450°F thermostats, and two French plates controlled by two 6-heat switches.



R60S -G

60”x24” Griddle controlled by five 450°F thermostats.



Unpacking

Receiving the Oven

Upon receipt, check for freight damage, both visible and concealed. Visible damage should be noted on the freight bill at the time of delivery and signed by the carrier's agent. Concealed loss or damage means loss or damage, which does not become apparent until the merchandise has been unpacked. If concealed loss or damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within 15 days of delivery. All packing material should be kept for inspection. Do not return damaged merchandise to Lang Manufacturing Company. File your claim with the carrier.

Location

Prior to un-crating, move the range as near its intended location as practical. The crating will help protect the unit from the physical damage normally associated with moving it through hallways and doorways.

Un-crating

The range will arrive completely assembled inside a wood frame covered by cardboard box and strapped to a skid. Remove the cardboard cover, cut the straps and remove the wood frame.

RANGE WEIGHS 900 LBS (408 kilograms). FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.

CAUTION **ANY STAND, COUNTER OR OTHER DEVICE ON WHICH RANGE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE OVEN (900 LBS.).**

SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.

Remove range from skid and place in intended location.

Installing the Legs

Legs or casters are available and must be specified upon ordering.

To install the 6-inch legs, remove the legs from the oven cavity, place some cardboard on the floor and gently tip the range onto its back. Fasten the legs into the threaded holes provided and then gently flip the oven onto its legs.

To install the 6-inch casters, remove the casters from the oven cavity, place some cardboard on the floor and gently tip the range onto its back. Attach the casters to the adapter plates. Gently tip the oven onto its casters.

INSTALLATION

DANGER: **THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.**

WARNING: **INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.**

NOTICE: **The data plate is located right of range top controls and behind the circuit breaker door on oven. The oven voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.**

NOTICE: **The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards**.

Electrical Connection

All connections can be made through 1 3/4" hole in the bottom of the oven.

Connections should be made to the wires coming form the circuit breaker.

WARNING: **MAKE SURE THE MAIN POWER SUPPLY TO THE RANGE IS TURNED OFF AT THE SOURCE PRIOR TO CONNECTING POWER TO THE RANGE.**

The range can now be connected to power.

CAUTION: **BE SURE THE POWER SUPPLY VOLTAGE MATCHES THE VOLTAGE SPECIFIED ON THE NAMEPLATE LOCATED ON THE FRONT OF THE RANGE.**

Total K.W. Conn	Three Phase									Single Phase	
	208 Volt			240 Volt			480 Volt			208 V	240 V
	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2
37.0	108.0	100.0	100.0	93.9	86.7	86.7	46.9	43.3	43.3	177.9	154.2

PHASING

POWER SUPPLY	TERMINAL BLOCK	RANGE TOP
SINGLE PHASE	L1	1,3,5,7,9
	L2	2,4,6,8,10
THREE PHASE	L1	1,4,7,10
	L2	2,5,8
	L3	3,6,9

Operation

Prior to putting any range or oven into full time operation at normal cooking temperatures, it must be thoroughly "seasoned" or dried out. Moisture absorption in the closed spaces, in the insulation and even inside the heating elements can cause future trouble if not properly treated.

Before the initial use of the range, the ovens must be thoroughly allowed to dry out. This is done by setting the top and bottom oven switches to the “low” position, and setting the thermostat to 350^{O}F degrees. Allow the range ovens to saturate until all vapor and condensation has been eliminated. For best operating results allow the range ovens to thoroughly dry out. Allow 8 to 12 hours for this process. Clean top plates thoroughly. Apply salad oil. Turn each plate switch or thermostat to a low position and allow plate to heat for three hours.

If the unit is out of use for three or more days, a one hour preheat schedule should be used, especially when exposed to high humidity and/or cool temperatures.

NOTICE: **During the first few hours of operation you may notice a small amount of smoke coming off the unit, and a faint odor from the smoke. This is normal for a new unit and will disappear after the first few hours of use.**

Ovens

WARNING

ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.

The range ovens must be thoroughly, preheated before satisfactory baking can be done. The range ovens will not bake uniformly if not sufficiently preheated.

To compensate for temperature drop when loading the range ovens, set the thermostat up 50^{O}F degrees over the desired temperature. Reset thermostat after the ovens is loaded.

The range ovens may, of course, be preheated with the 3 heat switches set at a lower position than "High", but the time required will be proportionally longer. After preheating, set the two 3 heat switches for proper ratio of "top" and "bottom" heat to suit the product to be baked or roasted.

The 12" high "Roasting and Baking" range ovens is equipped with a removable rack. For baking pies, bread, or for roasting operations, the rack may be placed directly on the metal deck and the pans placed on the rack. For baking cakes or pastries the rack should be located in the lower position provided by the rack supports at the sides of the range and the pans placed on the rack in this lower position.

The following temperature, time, switch setting and rack positions are suggested as a guide in baking various classes of products:

Product	Average Range Temperature	Time (Min.)	With Metal Switch Settings		Rack Position
			Top	Bottom	
Pies	375-425^{O}F	35-60	Low	Medium	Rack on Deck
Rolls	375-400 ^{O}F	15-30	Low	High	Rack Support
Cake	350-400 ^{O}F	20-45	Low	High	Rack Support
Pastries	325-375 ^{O}F	8-20	Low	High	Rack Support
Bread	425-450 ^{O}F	25-45	Low	Medium	Rack on Deck
Roast Beef	300-325 ^{O}F		Low	High or Medium	Rack on Deck

RANGE TOP

Consists of the various top arrangements, depending on specific model purchased:

12" x 24" hot plate controlled by high temperature thermostats. Temperature ranges from 0°F-850°F. Recommended: Stock pots and heavy kettle work.

Round French Plates, controlled by indicating type 6-heat switch. Temperature ranges from 0°F -750°F. Recommended: Light duty sauce pans and small stockpots. Not Recommended: Heavy stock pots, or heavy urns, or kettles.

60” x 24” or 48” x 24” or 36" x 24" or 24" x 24" grill plates, controlled by thermostats. Temperature ranges from 0°F -450°F. Recommended: All heavy and light frying. Set the thermostat dial at the desired temperature. The red pilot light will be on until the desired temperature is reached. The pilot light indicates when the plate is heating.

Cleaning

WARNING

KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.

CAUTION

MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.

The range should be thoroughly cleaned at least once a week in addition to the normal daily cleaning to insure against the accumulation of foreign material. Keep inside of oven and metal deck clean, particularly around door opening, door edges and at bottom of door opening so that the door may close tightly.

NOTICE **Oven cleaner used should be marked: "safe on aluminum".**

Keep drip pans under range top plates clean.

Keep hotplate and griddle surfaces clean.

Outside of range and top should be kept clean.

Electric equipment is inherently clean and sanitary, but may become unsanitary if dirt is allowed to accumulate on it. Take advantage of the clean, sanitary features of electric equipment. Give it the regular attention that it deserves, the same as any other highly perfected machinery, to insure best results and continued high operating efficiency.

CALIBRATION

Calibration Check

Place thermometer in the center of oven cavity.
Set thermostat to 350°F and place both 3-heat switches in the “HIGH” position.
Allow the oven to preheat for at least half an hour.
Note cycle on temperatures and cycle off temperatures for 3 cycles. (Red indicator light indicates when oven is calling for heat)
After 3 cycles average the temperature. (Add all six temperatures and divide by 6)

Calibration Adjustment

A 1/16” flat blade screwdriver with a 2” shaft is required to make adjustments on the thermostat.
Maintain the oven temperature at 350°F.
Without turning the thermostat, remove the knob.
Locate the adjustment screw at the base of the shaft and insert the screwdriver.
Grasp the shaft and turn the screwdriver. Counter clockwise to increase and clockwise to decrease (1/8 of a turn will move the temperature 5-7°F in either direction).
Reinstall the oven knob and recheck the oven temperature.

Symptom	Cause	Corrective Action
Oven will not heat	No power to oven	Turn on power
	Internal breaker tripped	Reset breaker
	Defective Thermostat	Verify calibration
	Defective 3-heat switch	Failed 3-heat or 6-heat switch*
	Defective oven element	Remove the wires and check for continuity across the element
Range will not heat	No power to oven	Turn on power
	Internal breaker tripped	Reset breaker
	Defective thermostat or 6-heat switch	Verify calibration
	Defective 3-heat switch	Call factory or consult service manual for correct checks on each switch*
Product is burning	Failed thermostat	Verify calibration
	Product is cooked too long	Operational condition
Product is not cooked	Failed thermostat	Verify calibration
	Failed 3-heat switch	Call factory or consult service manual for correct checks on each switch*

TESTS

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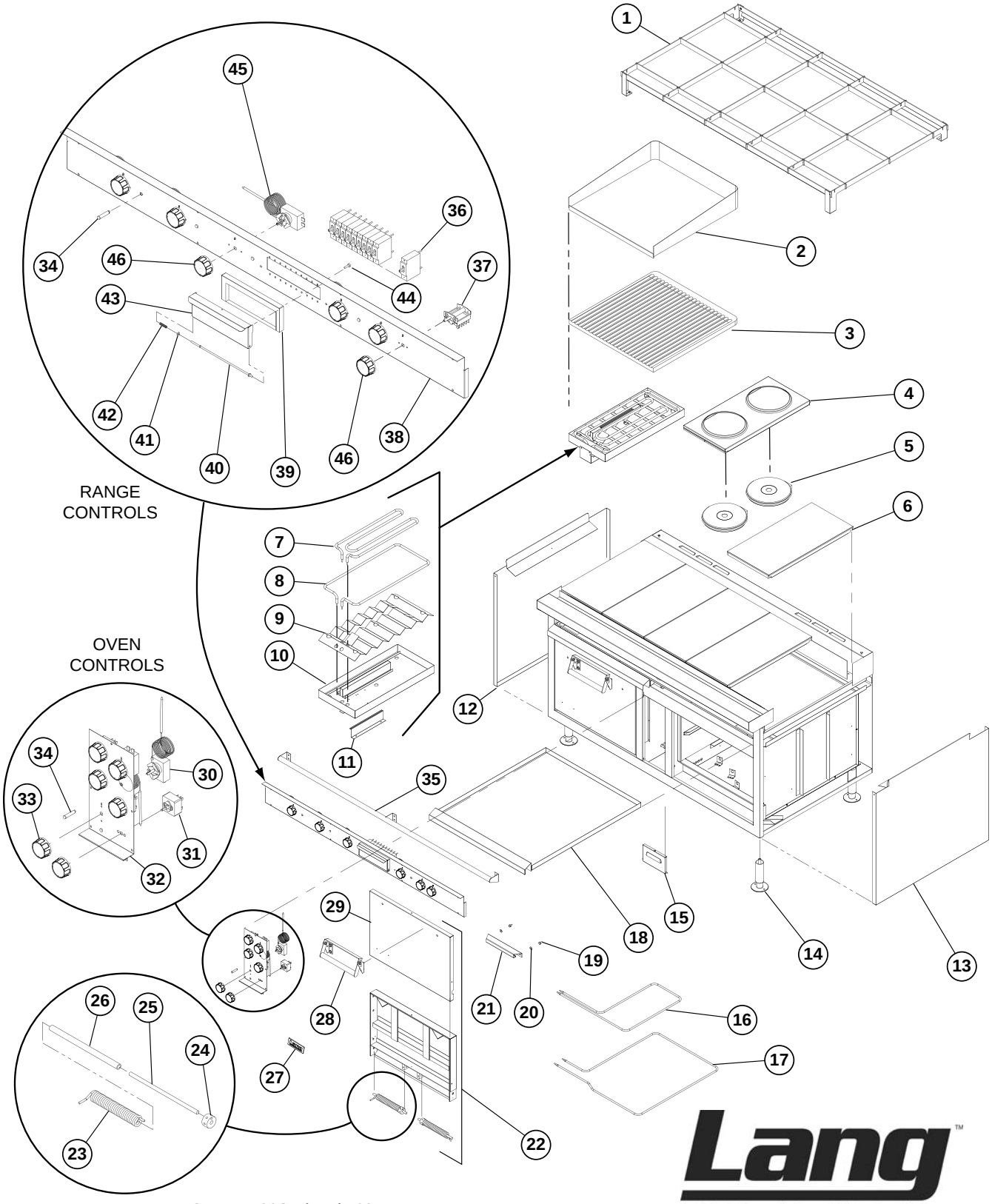
WARNING

BOTH HIGH AND LOW VOLTAGES ARE PRESENT INSIDE THIS APPLIANCE WHEN THE UNIT IS PLUGGED/WIRED INTO A LIVE RECEPTACLE. BEFORE REPLACING ANY PARTS, DISCONNECT THE UNIT FROM THE ELECTRIC POWER SUPPLY.

CAUTION

USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.



MODEL: R60S Electric 60” Range

Lang™
A Division of Star Mfg. Int’l, Inc.

SK2316 Rev. - 9/26/07

PARTS LIST

October 8, 2008, Rev B

Model No: R60S-ATA, R60S-ATB, R60S-ATC, R60S-ATD, R60S-ATE, R60S-ATF, R60S-ATG, R60S-ATH
COMMERCIAL & MARINE ELECTRIC 60" RANGE

Key Number	Part Number	Qty Per	Description	
1	P9-50302-297	1	SEARAIL ASSY 1'(RF&500)	R60S-ATE208M/480M
	P9-50302-298	1	SEARAIL ASSY 2' (RF&500)	R60S-ATD440M/480M
	P9-50302-300	1	SEARAIL ASSY 5' {500}	R60S-ATA-440M/480M, R60S-ATB-208M/240M/480M
	P9-50302-301	1	SEARAIL ASSY 3' (RF&500)	R60S-ATC240M/440M/480M
2	P9-50401-02	1	RANGE PLATE ASSY 1/2 X 2'	R60S-ATC
	P9-50401-03	1	RANGE PLATE ASSY 1/2 X 3'	R60S-ATD
	P9-50401-11-1	1	RANGE PLATE ASSY 1" X 4'	R60S-ATE-208/208M, R60S-ATF-240/480
	P9-50401-12-1	1	RANGE PLATE MODULE 1 X 5'	R60S-ATG
3	GROOVING		GRIDDLE GROOVING	
4	P9-50300-82-1	1	EGO PLAT FRM ASY PHANT	R60S-ATB, R60S-ATC, R60S-ATD, R60S-ATF
	P9-50300-82-1	5	EGO PLAT FRM ASY PHANT	R60S-ATH
5	2N-11120-12	2	ELMNT TK 208V 2600W	R60S-ATB-208/208M, R60S-ATC-208, R60S-ATD-208, R60S-ATF-208
	2N-11120-12	10	ELMNT TK 208V 2600W	R60S-ATH-208
	2N-11120-13	2	ELMNT TK 240V 2600W	R60S-ATB-240/240M, R60S-ATC-240/240M, R60S-ATD-240, R60S-ATF-240
	2N-11120-13	10	ELMNT TK 240V 2600W	R60S-ATH-240
	2N-11120-14	2	ELMNT TK 480V 2600W	R60S-ATB-480M, R60S-ATC-480/440M/480M, R60S-ATD-480/440M/480M, R60S-ATF-480
	2N-11120-14	10	ELMNT TK 480V 2600W	R60S-ATH-480
6	P9-11010-37-1	1	HOTPLATE 400V 500W CAST	R60S-ATD380M
	P9-11010-37-1	4	HOTPLATE 400V 500W CAST	R60S-ATB380M
	PS-11010-34-W1	1	ASY, HOTPLATE 208V 5000W	R60S-ATD-208
	PS-11010-34-W1	2	ASY, HOTPLATE 208V 5000W	R60S-ATC-208
	PS-11010-34-W1	4	ASY, HOTPLATE 208V 5000W	R60S-ATB-208
	PS-11010-34-W1	5	ASY, HOTPLATE 208V 5000W	R60S-ATA-208
	PS-11010-35-W1	2	ASY, HOTPLATE 240V 5000W	R60S-ATC-240V
	PS-11010-35-W1	4	ASY, HOTPLATE 240V 5000W	R60S-ATB-240, R60S-ATB240M
	PS-11010-35-W1	5	ASY, HOTPLATE 240V 5000W	R60S-ATA-240
	PS-11010-36-W1	2	ASY, HOTPLATE 480V 5000W	R60S-ATC-480/440M/480M
	PS-11010-36-W1	4	ASY, HOTPLATE 480V 5000W	R60S-ATB480M
	PS-11010-36-W1	5	ASY, HOTPLATE 480V 5000W	R60S-ATA440M, R60S-ATA-480M R60S-ATA-480V
7	2N-11010-10	2	ELMNT T/P 208V 3KW I/S	R60S-ATC-208V
	2N-11010-10	3	ELMNT T/P 208V 3KW I/S	R60S-ATD-208
	2N-11010-10	4	ELMNT T/P 208V 3KW I/S	R60S-ATE-208/208M, R60S-ATF-208
	2N-11010-10	5	ELMNT T/P 208V 3KW I/S	R60S-ATG-208
	2N-11010-22	2	ELMNT T/P 240V I/S 3KW	R60S-ATC-240/240M
	2N-11010-22	3	ELMNT T/P 240V I/S 3KW	R60S-ATD-240
	2N-11010-22	4	ELMNT T/P 240V I/S 3KW	R60S-ATE-240, R60S-ATF-240
	2N-11010-22	5	ELMNT T/P 240V I/S 3KW	R60S-ATG-240
	2N-11010-24	2	ELMNT T/P 480V I/S 3KW	R60S-ATC-480/440M/480M
	2N-11010-24	3	ELMNT T/P 480V I/S 3KW	R60S-ATD-480/440M/480M
	2N-11010-24	4	ELMNT T/P 480V I/S 3KW	R60S-ATE480M, R60S-ATF-480
	2N-11010-24	5	ELMNT T/P 480V I/S 3KW	R60S-ATG-480/480M
	2N-11010-26	3	ELMNT T/P 380V 1/S 3KW	R60S-ATD380M
	2N-11050-34	4	ELE 360VN 380V 1/S 1.2KW	R60S-ATB380M
8	2N-11010-09	2	ELMNT T/P 208V 3KW O/S	R60S-ATC-208V
	2N-11010-09	3	ELMNT T/P 208V 3KW O/S	R60S-ATD-208V
	2N-11010-09	4	ELMNT T/P 208V 3KW O/S	R60S-ATE-208/208M, R60S-ATF-208
	2N-11010-09	5	ELMNT T/P 208V 3KW O/S	R60S-ATG-208
	2N-11010-21	2	ELMNT T/P 240V O/S 2KW	R60S-ATC-240/240M
	2N-11010-21	3	ELMNT T/P 240V O/S 2KW	R60S-ATD-240

IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED
INCLUDE MODEL AND SERIAL NUMBER

Some items are included for illustrative purposes only and in certain instances may not be available.

PARTS LIST

October 8, 2008, Rev B

Model No: R60S-ATA, R60S-ATB, R60S-ATC, R60S-ATD, R60S-ATE, R60S-ATF, R60S-ATG, R60S-ATH
COMMERCIAL & MARINE ELECTRIC 60” RANGE

Key Number	Part Number	Qty Per	Description	
8	2N-11010-21	4	ELMNT T/P 240V O/S 2KW	R60S-ATE-240, R60S-ATF-240
	2N-11010-21	5	ELMNT T/P 240V O/S 2KW	R60S-ATG-240
	2N-11010-23	2	ELMNT T/P 480V O/S 2KW	R60S-ATC-480/440M/480M
	2N-11010-23	3	ELMNT T/P 480V O/S 2KW	R60S-ATD-480/440M/480M
	2N-11010-23	4	ELMNT T/P 480V O/S 2KW	R60S-ATE480M, R60S-ATF-480
	2N-11010-23	5	ELMNT T/P 480V O/S 2KW	R60S-ATG-480/480M
	2N-11010-26	3	ELMNT T/P 380V 1/S 3KW	R60S-ATD380M
	2N-11050-33	4	ELE 360VN 380V O/S 1.8KW	R60S-ATB380M
9	P9-50300-42	2	ZIG ZAG ASSY W/SNOUT 5KW	R60S-ATC-480/240M/440M/480M
	P9-50300-42	3	ZIG ZAG ASSY W/SNOUT 5KW	R60S-ATD-208/240/480/440M/480M
	P9-50300-42	4	ZIG ZAG ASSY W/SNOUT 5KW	R60S-ATE-208/240/208M/480M, R60S-ATF-208/240/480
	P9-50300-42	5	ZIG ZAG ASSY W/SNOUT 5KW	R60S-ATG-208/240/480/480M
10	P9-50300-41	2	ELEM PAN ASSY W/SNOUT 5KW	R60S-ATC-480/240M/440M/480M
	P9-50300-41	3	ELEM PAN ASSY W/SNOUT 5KW	R60S-ATD-208/240/480/440M/480M
	P9-50300-41	4	ELEM PAN ASSY W/SNOUT 5KW	R60S-ATE-208/240/208M/480M, R60S-ATF-208/240/480
	P9-50300-41	5	ELEM PAN ASSY W/SNOUT 5KW	R60S-ATG-208/240/480/480M
11	P9-50300-22	2	208-240V 3/16 BULB	R60S-ATC-240M
	P9-50300-22	3	208-240V 3/16 BULB	R60S-ATD-208/240
	P9-50300-22	4	208-240V 3/16 BULB	R60S-ATE-240/208M, R60S-ATF-208
	P9-50300-22	5	208-240V 3/16 BULB	R60S-ATG-208/240
	P9-50300-43	2	480V 3/16 BULB HOLDER	R60S-ATC-480/440M/480M
	P9-50300-43	3	480V 3/16 BULB HOLDER	R60S-ATD440M/480/480M
	P9-50300-43	4	480V 3/16 BULB HOLDER	R60S-ATE480M
	P9-50300-43	5	480V 3/16 BULB HOLDER	R60S-ATG-480/480M
12	P9-500-101-1	1	BODY WRAP L/H SIDE	ALL
13	P9-500-101	1	BODY WRAP R/H SIDE	ALL
14	2A-72500-03	4	LEG 6” SS ADJ WITH 3/4-10	COMMERCIAL
	2A-72500-06	4	LEG 5 1/2” W/BOLT DOWN ADJ	MARINE
15	P9-500-125	1	SWITCH DOOR FRONT	ALL
16	2N-11050-26	4	ELE 36OVN 240V I/S 1.2KW	240V
	2N-11050-30	4	ELMNT 36OVEN 480V (C&C	R60S-ATA440M/480M/480V, R60S-ATB480M, R60S-ATC-480/440M/480M,
	2N-11050-32	4	ELE 36OVN 208V I/S 1.2KW	208V
	2N-11050-36	4	ELE 36OVN 240V I/S 1.2KW	R60S-ATA-240V
17	2N-11050-25	4	ELE 36OVN 240V O/S 1.8KW	240V
	2N-11050-29	4	ELMNT 36OVEN 480V 9 (C&C	R60S-ATA440M/480M/480V, R60S-ATB480M, R60S-ATC-480/440M/480M,
	2N-11050-31	4	ELE 36OVN 208V O/S 1.8KW	208V
18	P9-60102-292	2	PAN ASSY 500 ASSY, COMMERCIAL	COMMERCIAL
19	2C-20111-01	AR	SCRW HXHD CAP 1/4-20X1/2	R60S-ATA440M
20	2C-20203-02	24	WSHR FLT SS 1/4 USS MS	R60S-ATA440M
21	Y9-50300-14	2	MARINE HANDLE CHANNEL	R60S-ATA440M, R60S-ATA-480M, R60S-ATB-208M, R60S-ATB480M
22	N9-LA36-193	2	DOOR ASSY A/L	ALL
23	2P-51001-01	2	SPRING OVN LH DOOR	R60S-ATA440M
	2P-51001-02	2	SPRING OVN RH DOOR	R60S-ATA440M
24	2A-50800-07	4	TENSION DISC STD OVEN	R60S-ATA440M
25	N9-LA36-145	4	DOOR RODS LA36	ALL
26	N9-LA36-146	4	DOOR PIPE LA36	ALL
27	K9-60301-43-1	2	DIE CAST LOG + TINNERMAN	R60S-ATA440M

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Model No: R60S-ATA, R60S-ATB, R60S-ATC, R60S-ATD, R60S-ATE, R60S-ATF, R60S-ATG, R60S-ATH
COMMERCIAL & MARINE ELECTRIC 60" RANGE

Key Number	Part Number	Qty Per	Description	
28	Y9-50300-38-1	2	HANDLE MARINE - ASSY	ALL MARINE APPLICATIONS
	Y9-50312-80	2	HANDLE ASSY, DOOR	R60S-ATA-208, R60S-ATC-208
29	P9-50312-33	2	DOOR OUTSIDE PANEL	R60S-ATA440M
30	2T-30402-09	2	STAT ADJ 550o 72 C/T	ALL
31	2E-30304-35	4	SWTROT3HT 240/480VAC20AMP	R60S-ATA-208/240/480/440M/480M, R60S-ATB-208/240/208M/240M/480M, R60S-ATC-208/240/480/240M/440M/480M, R60S-ATD-208/240/480/440M/480M, R60S-ATE-208/240/208M/480M, R60S-ATF-208/240/480, R60-ATF-480, R60S-ATG-480/480M, R60S-ATH-208/240/480
32	P9-500-306	1	CTRL PNEL 208/240/480V	ALL
33	P9-70701-41	2	KNOB 6 HEAT EGOTK PHANTOM	R60S-ATB-208/240/480M, R60S-ATD-208/240/480/440M/480M, R60S-ATF-208/240/480, R60S-ATH-480
	P9-70701-41	4	KNOB 6 HEAT EGOTK PHANTOM	R60S-ATC440M, R60S-ATC480M
	Y9-70701-10-1	4	KNOB 3-HEAT 208-240V	R60S-ATA-208/240/480/440M/480M, R60S-ATB-208/240/240M/480M, R60S-ATC440M/480M, R60S-ATD-208/240/480/440M/480M, R60S-ATE208M, R60S-ATF-208/240/480, R60S-ATG-208/240/480/480M, R60S-ATH-480
	Y9-70701-10-1	6	KNOB 3-HEAT 208-240V	R60S-ATB-208M
	Y9-70701-12-1	2	KNOB 550° A PHANTOM	R60S-ATA440M/480M, R60S-ATB-208/240/208M/240M/480M, R60S-ATC440M/480M, R60S-ATD-208/240/480/440M/480M, R60S-ATE208M, R60S-ATF-208/240/480, R60S-ATG-208/240/480/480M, R60S-ATH-480
	Y9-70701-16	2	KNOB 450° A PHANTOM	R60S-ATC440M/480M, R60S-ATD-208/240/380M/480/440M/480M, R60S-ATE208M, R60S-ATF-208/240/480, R60S-ATG-208/240/480/480M
	Y9-70701-16	4	KNOB 450° A PHANTOM	R60S-ATE208M, R60S-ATF-208/240/480
	Y9-70701-16	5	KNOB 450° A PHANTOM	R60S-ATG-208/240/480/480M
	Y9-70701-17	2	KNOB ASSY 450° B	R60S-ATC-208V
	Y9-70701-35	2	KNOB ASSY 850° B	R60S-ATD380M
34	Y9-31601-01-1	2	PILOT LT 250V W/TIN CLIP	R60S-ATH-208/240
	Y9-31601-01-1	4	PILOT LT 250V W/TIN CLIP	R60S-ATD-208/240
	Y9-31601-01-1	6	PILOT LT 250V W/TIN CLIP	R60S-ATB-208/240, R60S-ATC-208/240, R60S-ATF-208/240
	Y9-31601-01-1	7	PILOT LT 250V W/TIN CLIP	R60S-ATA-208, 240, R60S-ATE-208/240, R60S-ATG-208/240
	Y9-31601-02-1	6	PILOT LT 480V W/TIN CLIP	R60S-ATB480M, R60S-ATC-480, R60S-ATC440M/480M
	Y9-31601-02-1	7	PILOT LT 480V W/TIN CLIP	R60S-ATA-480
	Y9-31601-02-1	9	PILOT LT 480V W/TIN CLIP	R60S-ATA440M
35	P9-50300-46	1	GRAB BAR ASSY 60 RANGE	ALL MARINE APPLICATIONS
	2E-31800-02	10	CB 250V 50A 1 POLE SMALL	R60S-ATA-208/240, R60S-ATB-208/240/208M/240M, R60S-ATC-208/240/240M, R60S-ATD-208/240, R60S-ATE-208/240/208M, R60S-ATF-208/240, R60S-ATG-208/240, R60S-ATH-208/240

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INCLUDE MODEL AND SERIAL NUMBER

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PARTS LIST

October 8, 2008, Rev B

Model No: R60S-ATA, R60S-ATB, R60S-ATC, R60S-ATD, R60S-ATE, R60S-ATF, R60S-ATG, R60S-ATH
COMMERCIAL & MARINE ELECTRIC 60" RANGE

Key Number	Part Number	Qty Per	Description	
36	2E-31800-04	2	CB 480V 50A 3 POLE	R60S-ATA480/440M/480M, R60S-ATB480M, R60S-ATC-480/440M/480M, R60S-ATD-480/440M/480M, R60S-ATE480M, R60S-ATF-480, R60S-ATG-480/480M, R60S-ATH-480
37	2E-30304-09	2	SWTROT 6 HEAT+OFF208/240V	R60S-ATB-208/240/208M/240M, R60S-ATC-208/240/240M/440M/480/480M, R60S-ATD-208/240/480/440M/480M, R60S-ATF-208/240/480
	2E-30304-09	10	SWTROT 6 HEAT+OFF208/240V	R60S-ATH-208/240/480
38	P9-500-308	1	TOP CONTROL PNL HOLE PATTEN	R60S-ATB-208/240/208M/240M, R60S-ATC-208/240M, R60S-ATD-208/240, R60S-ATF-208/240
	P9-500-308-10	1	TOP CONTROL PANEL CUSTOM	R60S-ATH-208/240
	P9-500-308-12	1	TP CTRL PNEL CUSTOM 480V	R60S-ATA440M/480M, R60S-ATG480M
	P9-500-308-13	1	TP CTRL PNEL CUSTOM 480V	R60S-ATC-240V
	P9-500-308-17	1	TOP CNTRL PNL 480V ALL	R60S-ATH-480
	P9-500-308-5	1	TOP CONTROL PANEL CUSTOM	R60S-ATB480M, R60S-ATC-480/440M/480M, R60S-ATD-480/440M/480M, R60S-ATF-480
	P9-500-309-1	1	HOLE PATTERN A, E, G 480V	R60S-ATA-480, R60S-ATE480M, R60S-ATG-480
39	P9-500-312	1	C.B. DOOR FRAME ASSY	R60S-ATA-208, R60S-ATC-208
40	P9-500-310-2	1	BREAKER COVER HINGE	208/240V
41	2C-20201-13	2	WSHR BRASS #8 FLAT SAE	R60S-ATA440M
42	2P-51001-19	1	SPRING SWT DR HINGE EHS	440M/480/480M
	2P-51001-19	2	SPRING SWT DR HINGE EHS	208/208M/240/240M
43	P9-500-433	1	SPOT BREAKER COVER	R60S-ATA-208, R60S-ATC-208
44	2C-20103-02	4	SHT METAL SCRW #10 X 1/2	R60S-ATA-208
45	2T-30402-08	2	STAT ADJ 450° 72 C/T	R60S-ATC
	2T-30402-08	3	STAT ADJ 450° 72 C/T	R60S-ATD
	2T-30402-08	4	STAT ADJ 450° 72 C/T	R60S-ATE, R60S-ATF
	2T-30402-08	5	STAT ADJ 450° 72 C/T	R60S-ATG
	2T-30402-23	1	STAT ADJ 850o 48C/T NAK	R60S-ATD, R60S-ATE
	2T-30402-23	2	STAT ADJ 850o 48C/T NAK	R60S-ATC
	2T-30402-23	4	STAT ADJ 850o 48C/T NAK	R60S-ATB
	2T-30402-23	5	STAT ADJ 850o 48C/T NAK	R60S-ATA
46	P9-70701-35	1	KNOB 850o B PHANTOM	R60S-ATD-208/240/480
	P9-70701-35	2	KNOB 850o B PHANTOM	R60S-ATC-208V, R60S-ATD440M/480M
	P9-70701-35	4	KNOB 850o B PHANTOM	R60S-ATB-208/240/208M/240M/480M
	P9-70701-35	5	KNOB 850o B PHANTOM	R60S-ATA440M/480M
NI	2B-50200-09	2	RACK OVEN	ALL
NI	2E-30500-08	1	TRM BLOCK 2 POLE SMALL 95	R60S-ATA440M/480M, R60S-ATB480M, R60S-ATG-208/240/480/480M
NI	2E-30500-08	2	TRM BLOCK 2 POLE SMALL 95	R60S-ATC-480, R60S-ATD440M/480M, R60S-ATE480M,
NI	2E-30500-09	1	TRM BLOCK 3 POLE SMALL 95	R60S-ATA440M/480M, R60S-ATB480M, R60S-ATG-208/240/480/480M
NI	2E-30500-15	1	TRM BLOCK 4 POLE 115AMP	R60S-ATC440M/480M
NI	2E-31200-02	1	LUG GROUNDING UL APPROVED	R60S-ATA440M
NI	2M-61104-02	1	WD 500 RNG 480VAC	R60S-ATC-480/440M/480M, ATD440M/480M, R60S-ATE480M

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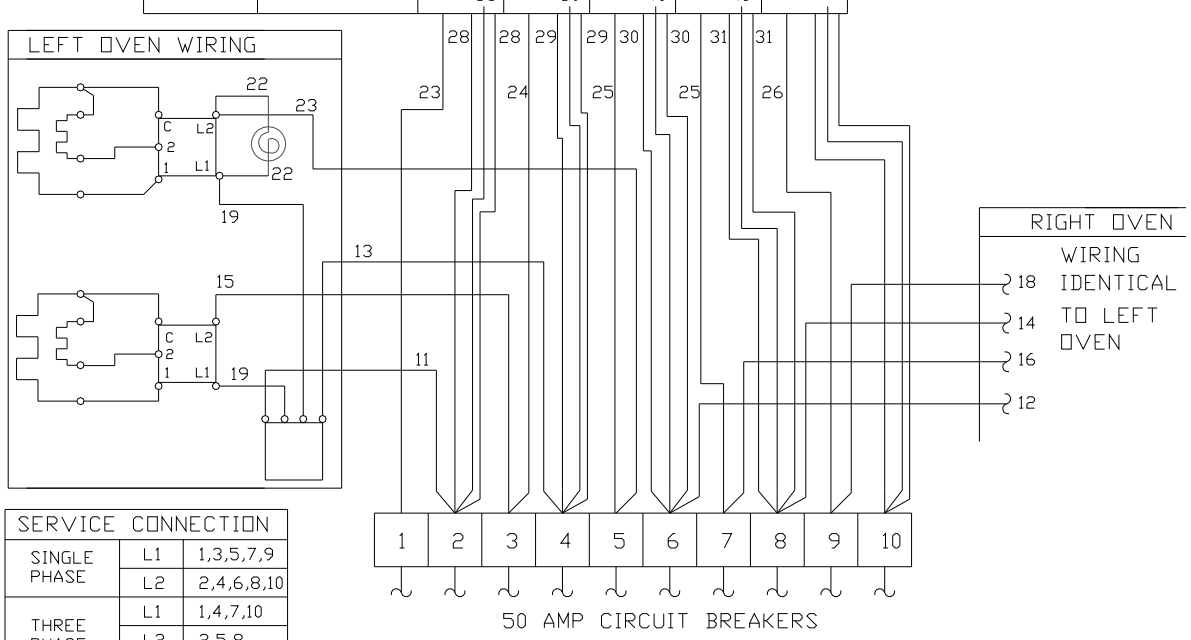
Wiring Diagram 208/240 Volt

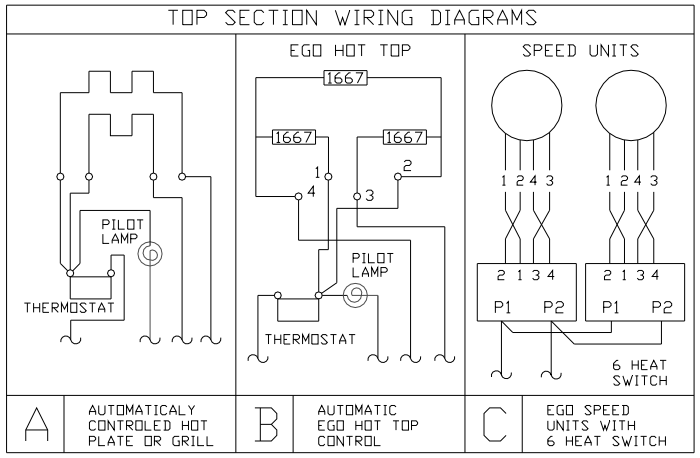
MODEL DESIGNATION		TOP ARRANGEMENT				
		SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5
500S-A	*500S-ACT	B	B	B	B	B
500S-B	*500S-BCT	B	B	B	B	C
500S-C	*500S-CCT	A	A	B	B	C
500S-D	*500S-DCT	A	A	A	B	C
500S-E	*500S-ECT	A	A	A	A	A
500S-F	*500S-FCT	A	A	A	A	C
500S-G	*500S-GCT	A	A	A	A	A
		38	39	40	41	



SERVICE CONNECTION		
SINGLE PHASE	L1	1,3,5,7,9
	L2	2,4,6,8,10
THREE PHASE	L1	1,4,7,10
	L2	2,5,8
	L3	3,6,9

KW PER PHASE - RANGE		
L1-L2	L2-L3	L3-L1
13	11	13

KW PER PHASE - COOK TOP		
L1-L2	L2-L3	L3-L1
10	5	10

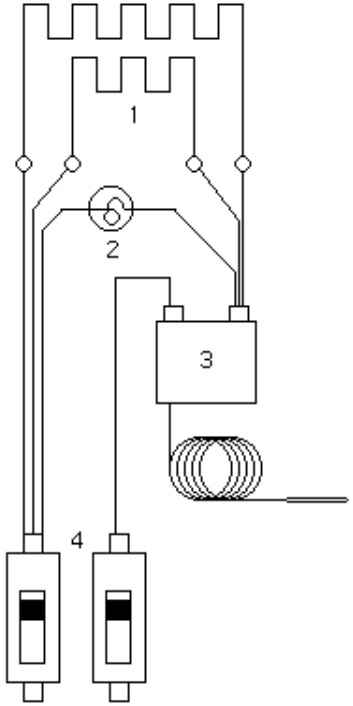
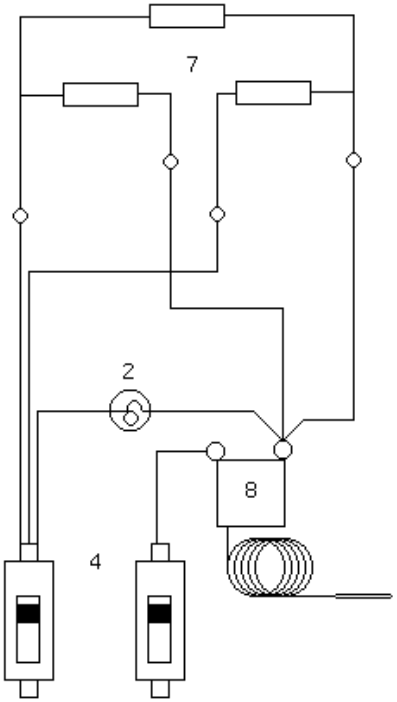
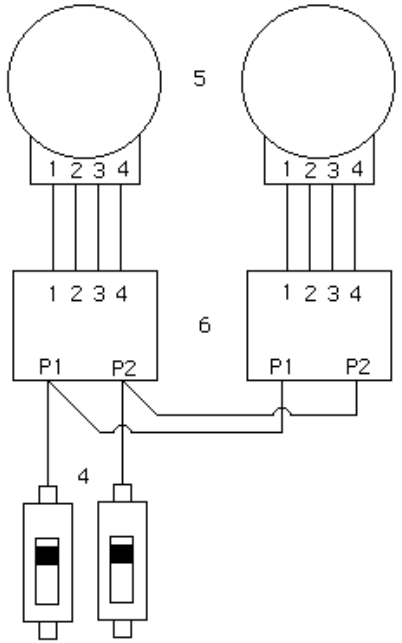


NOTES:
1. EXAMPLE FOR DETERMINING THE WIRING OF A LANG RANGE
1.1 VIEWED FROM THE FRONT, LEFT TO RIGHT, THE TOP 1 FOOT SECTIONAL ARRANGEMENT FOR THE 500S-C RANGE IS A,A,B,B,C (AS DETERMINED BY THE TOP ARRANGEMENT CHART) EACH OF THE LETTERS REPRESENT ONE OF THE TYPICAL WIRING DIAGRAMS SHOWN ABOVE.
1.2 THE POWER INPUT LEADS TO EACH TOP SECTION AND THE OVEN ARE SHOWN IN THE DIAGRAM AT THE LEFT CONNECTED TO THEIR RESPECTIVE CIRCUIT BREAKERS.
1.3 PROPER RANGE PHASING AND POWER DISTRIBUTION TO EACH CIRCUIT MAY BE DETERMINED BY REFERRING TO THE SERVICE CONNECTION CHART.
2. COOK TOP ONLY - DELETE OVEN CIRCUITS

500S RANGE WITH EGO HOT TOPS USE ON (E) SERIAL NO. AND ON

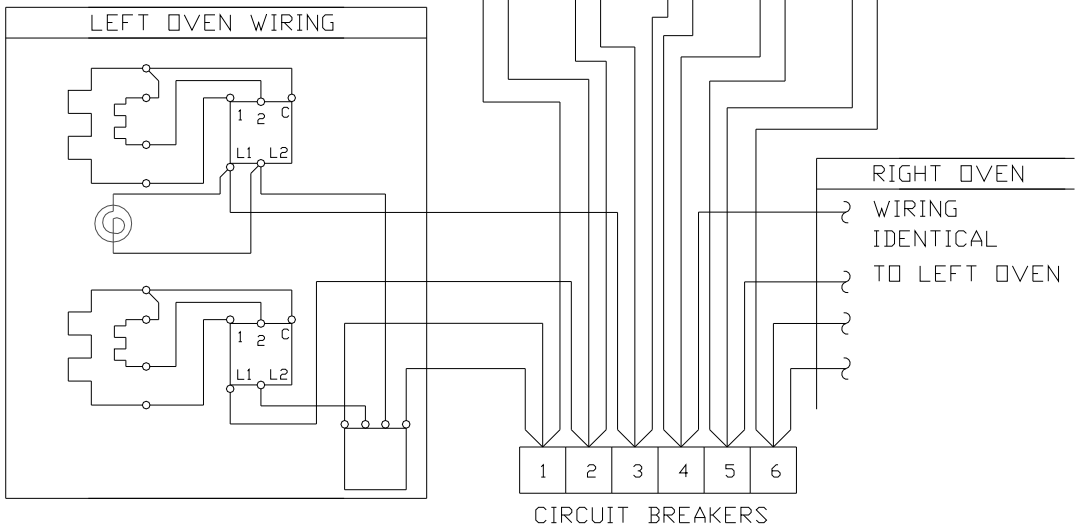
Range Top Wiring

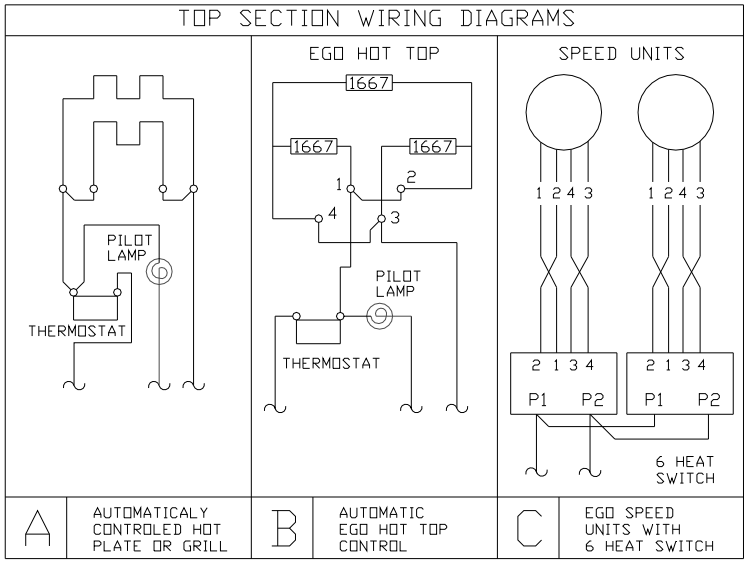
1. Griddle and Top Plate Element
2. Pilot Light
3. 450° Griddle thermostat
4. Circuit breakers
5. French plate
6. 6-Heat switch
7. Hot Top
8. 800° Hot Top thermostat.

GRIDDLE	HOT TOP	FRENCH PLATE
		

Wiring Diagram 480 Volt

MODEL	TOP ARRANGEMENT				
	SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5
500S-A	B	B	B	B	B
500S-B	B	B	B	B	C
500S-C	A	A	B	B	C
500S-D	A	A	A	B	C
500S-E	A	A	A	A	B
500S-F	A	A	A	A	C
500S-G	A	A	A	A	A





SERVICE CONNECTION		
THREE PHASE	L1	1,4
	L2	2,5
	L3	3,6

KW PER PHASE	L1-L2	13
	L2-L3	13
	L3-L1	11

NOTES:
1. EXAMPLE FOR DETERMINING THE WIRING OF A LANG RANGE
1.1 VIEWED FROM THE FRONT, LEFT TO RIGHT, THE TOP 1 FOOT SECTIONAL ARRANGEMENT FOR THE 500S-C RANGE IS A,A,B,B,C (AS DETERMINED BY THE TOP ARRANGEMENT CHART) EACH OF THE LETTERS REPRESENT ONE OF THE TYPICAL WIRING DIAGRAMS SHOWN ABOVE.
1.2 THE POWER INPUT LEADS TO EACH TOP SECTION AND THE OVEN ARE SHOWN IN THE DIAGRAM AT THE LEFT CONNECTED TO THEIR RESPECTIVE CIRCUIT BREAKERS.
1.3 PROPER RANGE PHASING AND POWER DISTRIBUTION TO EACH CIRCUIT MAY BE DETERMINED BY REFERRING TO THE SERVICE CONNECTION CHART.

500S RANGE WITH EGO HOT TOPS
USE ON SERIAL NO. AND ON

STAR MANUFACTURING
10 Sunnen Drive, St. Louis, MO 63143 U.S.A.
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